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THE DETERMINANTS OF INTEREST GROUP MEMBERSHIP: ESTIMATING CHOICE-BASED PROBABILITY MODELS OF CONTRIBUTION DECISIONS

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Abstract

There has been much theorizing about why individuals join interest groups. However, little has been done to test the resulting propositions because of the difficulties associated with empirically analyzing the joining decision. This deficiency is especially great when it comes to public or symbolic interest groups. In this analysis, choice-based probability methods are employed that permit the combination of data from the 1980 National Election Study with comparable information about Common Cause members and the estimation of models of the participation calculus. Besides demonstrating the applicability of the choice-based methodology, this analysis shows the primary importance of political interest and policy preferences for the membership choice. Citizens who are politically interested and have preferences that roughly match an organization's reputation find that associational membership has both greater benefits and lower costs for them than it does for others. An ability to pay is irrelevant, regardless of educational attainment and despite members' high incomes. Organizational leaders deliberately keep the costs of membership low relative to most citizens' ability to pay; this encourages potential contributors to join in order to learn about the organization.

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Introduction: Where Do Public Interest Group Members Come From?

There has been much theorizing about why individuals join interest groups (e.g., Truman 1951, Olson 1965, Moe 1980). Explaining contribution choices is critical for understanding the nature of the American political system, but this enterprise has been severely hamstrung by the difficulties of utilizing the available data. There is a dearth of individual-level empirical work testing hypotheses about why people contribute. Previous empirical analyses have lacked either one of two essential ingredients: a nontrivial sample of associational members or a control group of nonmembers. National surveys of the American population have so few group members—only 3 percent of the population report being members of political clubs or organizations (Neuman 1986)—that students of participation cannot systematically examine contributors (e.g., Verba & Nie 1972): Occasional surveys of group participants (e.g., Moe 1980, Cook 1984) fail to incorporate nonmembers.

This deficiency in our knowledge is particularly great for public or symbolic interest groups (Polsby 1981-1982). Their emergence over the last two decades has helped reshape the American political scene (McFarland 1976, Berry 1977). As one recent analyst put it, "future scholars may come to regard the emergence of a new type of interest group based on ideas rather than material interests as a better reflection of the changes reverberating throughout American political life [in the 1960s and 1970s] than anything else" (Lunch 1987, p. 214). Symbolic organizations are seen as providing at least a modicum of countervailing authority to traditional economic interest groups. Yet what motivates individuals to overcome collective action problems and join these associations has proved perplexing. The rise and subsequent institutionalization of symbolic groups constitute yet another puzzle of participation (Brody 1978). Even the authors of one of the few attempts to analyze empirically membership in public interest groups conceded that why people contribute is unknown (Kau & Rubin 1982) after their aggregate-level analysis uncovered little systematic evidence for why people join.[1] But it is unclear whether their results reflect the idiosyncratic nature of the contribution decision or the aggregated level of the data.

This analysis distinguishes between these two possibilities. Individual-level data can be generated that contain both key ingredients for studying associational participation, a control group

and large numbers of organizational members. The application of econometric techniques that yield reasonable estimates make it possible to analyze rigorously why individuals join. The former is accomplished by initially combining data about a specific association with those about the national electorate: Information from a 1981 mail survey of over 1200 Common Cause (CC) contributors is merged with data from the traditional pre- and postelection cross-sectional surveys of roughly 1600 individuals interviewed in the 1980 American National Election Studies (NES):[2] The latter is achieved by subsequently utilizing choice-based probability methods that permit the estimation of structural models of the joining decision for endogenously chosen samples. Combining these surveys and employing appropriate techniques provide an unparalleled opportunity to test hypotheses about the key characteristics determining an organization's membership pool.

Common Cause is an ideal case for such purposes. Founded in 1971 by John Gardner, it is popularly viewed as the quintessential public interest group (for a detailed case study, see McFarland 1984). It has focused over the years on keeping the government open and free of corruption by concentrating on issues associated with governmental structure and process, and it has gained a reputation as an opponent of special interests and partisan political institutions. Specifically, it has specialized in a variety of "good government" issues—sunshine laws, campaign financing, and lobbying restrictions, among them.[3]

The remainder of this analysis proceeds in three steps. The first involves contrasting Common Cause members with the national citizenry; this comparison provides a baseline to judge how misleading inferences drawn from exclusively descriptive information actually are. Subsequently, a theoretical perspective on membership in symbolic organizations such as Common Cause is outlined in conjunction with an overview of the costs and benefits of associational membership. Finally, models of the contribution process are estimated to determine what factors are most salient for membership in symbolic groups.

Common Cause Members: A Composite Portrait

Most analyses of interest group membership describe contributors; frequently, it is either implicitly or explicitly inferred that those factors apparently differentiating them from the voting age population are relevant for the joining decision. There is no statistical basis for such judgments. More importantly, are these inferences deceiving?

Comparison of respondents in the CC and NES samples demonstrates that Common Cause members do differ from the average American in predictable sociodemographic, attitudinal, and behavioral ways (some of this information can be found in Table 1a). With respect to the former, group members appear far more likely to be college educated, male, white, earning a family income in excess of $25,000 per year (in 1980), and over 50 years old. Additionally, contributors are more prone to be of European descent, from either New England or Pacific states and not from the South, self-employed or retired, occupying a white collar job rather than a clerical or a blue collar position, from an urban area, and either reformist Protestant, Unitarian, Jewish, or areligious (not shown).[4] All of this is consistent with what is known about the correlates of political participation (e.g., Milbrath and Goel 1977, Bennett and Bennett 1986).

(Table 1a about here)

Group members also differ from the national citizenry in their policy preferences (Table 1b). True to what would be expected, Common Cause members are simultaneously more Democratic and more independent than the average citizen. In excess of 40 percent of association members describe themselves as independents but admit that they have a preference for the Democrats. In their "running tally of retrospective evaluations" (Fiorina 1981, p. 840), members are more likely to think that Democratic policy is more to their taste than Republican, but almost two-thirds view parties qua institutions negatively and label themselves independents. This finding is generally consistent with Common Cause's political activities: Organizational leaders tend to join Democrats in building coalitions yet advance policy positions antagonistic to partisan political institutions. Contributors are also far more prone than the general electorate to exhibit an ideological predisposition and to be liberal—once again, in accordance with expectations, given the general perception of Common Cause as a liberal group.

(Table 1b about here)

Association members rate the performance of partisan institutions—the federal government, Congress, and political parties—roughly the same as the average citizen. By contrast, they are more positively disposed to the Supreme Court, which is popularly considered a more nonpartisan, perhaps more liberal institution and which public interest groups have not traditionally criticized or opposed.[5] Those who are most committed to changing partisan institutions are most impressed with nonpartisan politics.

Contributors and nonmembers also differ dramatically in terms of their behavior, at least for those activities on which comparable data are available. These disparities are consistent with the popular image that public interest group members represent a tiny, activist segment of society. Remarkably, more than 70 percent of all organizational members contributed money in the 1980 election; 20 percent did political work in the campaign. The fraction of the total citizenry involved in these activities is miniscule by comparison.[6]

These descriptive data provide a vivid composite portrait of how the average Common Cause member differs from the voting age population. But nothing definitive can be concluded about why some citizens join symbolic organizations and others abstain. It is unclear whether there is any theoretical reason to believe that some of the characteristics on which members and nonmembers vary should make a difference. Once a theoretical model is specified, the resulting hypotheses must be econometrically tested. It is to these tasks that attention is now directed.

The Determinants of Membership in Public Interest Groups

The standard conceptualization of the participation decision is as a cost-benefit calculus (Mueller 1979). This perspective is adopted here, with the caveat that no strong effort will be made to distinguish between whether individuals derive benefits because they mistakenly believe they are having an impact on the provision of collective goods or because they believe in the organization's

TABLE 1a. COMMON CAUSE MEMBERS AND THE NATIONAL ELECTORATE: SELECTED SOCIODEMOGRAPHIC CHARACTERISTICS

Characteristic	Category (Percentage)	
	Common Cause	National Electorate
Education		
Some Grade School	0.0	3.4
Grade School	0.7	1.5
Some High School	1.0	21.0
High School	4.7	37.4
Some College	14.1	20.6
College	24.6	10.7
Postgraduate	54.9	5.5
Gender (Male)	56.6	43.3
Race (White)	98.5	87.3
Family Income		
Less than $10,000	5.0	23.1
$10,000 - $20,000	17.0	23.3
$20,000 - $25,000	14.8	16.7
$25,000 - $35,000	19.5	15.3
$35,000 - $50,000	22.4	16.0
More than $50,000	21.4	5.5
Age		
18 - 25	2.0	16.4
25 - 30	3.9	12.5
31 - 40	12.8	20.3
41 - 50	12.2	12.7
51 - 60	21.5	15.3
61 - 65	14.1	6.8
66 - 70	11.7	5.8
70 - older	21.7	10.3

Source: 1981 Common Cause Survey and 1980 National Election Studies

TABLE 1b. COMMON CAUSE MEMBERS AND THE NATIONAL ELECTORATE: POLICY PREFERENCES AND PARTICIPATORY BEHAVIOR

	Category (Percentage)	
Preference/Behavior	Common Cause	National Electorate
Party Identification[a]		
Strong Democrat	15.8	18.1
Weak Democrat	12.7	23.6
Leaning Democrat	40.4	11.7
Pure Independent	14.3	13.2
Leaning Republican	10.2	10.5
Weak Republican	4.3	14.3
Strong Republican	2.3	8.7
Ideology		
Extremely Liberal	6.2	1.0
Liberal	41.3	5.1
Slightly Liberal	21.8	7.6
Middle of Road	12.0	24.4
Slightly Conservative	10.3	14.6
Conservative	5.4	14.3
Extremely Conservative	0.6	1.4
Can't Say	2.4	31.5
Performance Rating: Federal Govt.		
Very Poor	10.8	6.9
Poor	28.0	31.5
Fair	49.6	52.7
Good	10.9	8.5
Very Good	0.7	0.5
Performance Rating: Congress		
Very Poor	10.0	6.9
Poor	33.0	35.8
Fair	48.3	46.0
Good	10.0	8.4
Very Good	1.4	0.3
Performance Rating: Supreme Court		
Very Poor	2.2	8.3
Poor	7.3	23.3
Fair	38.4	41.9
Good	43.0	23.2
Very Good	9.1	3.4
Performance Rating: Political Parties		
Very Poor	8.8	5.7
Poor	32.8	31.7
Fair	50.6	52.2
Good	7.3	8.9
Very Good	0.4	1.4
Participatory Activity		
Contributed Money in 1980	72.2	5.9
Did Political Work in Campaign	20.2	3.6

[a] Independents are divided into Leaning Democrat, Pure Independent, and Leaning Republican.
Source: 1981 Common Cause Survey and 1980 National Election Studies

stated goals.[7] Determining exactly what costs and benefits are likely to be relevant and what informational assumptions are reasonable is far more important.

Informational Assumptions: The Experiential Search Perspective

The following analysis is predicated on several crucial assumptions: that individuals are relatively uninformed about groups, that they are capable of learning, and that they know about their informational shortfalls and deal with them in a cost-effective manner. This perspective has previously been labeled experiential search (Rothenberg 1987a,b). It is asserted that individuals only have a general idea what a group stands for before deciding to sign up. Certainly if members were perfectly informed, as is assumed in the Olsonian model, an organization would never have to solicit members like Common Cause does.

Experiential search is a function of the fact that the relative costs of acquiring information through organizational membership are less than through search outside associations. This is especially likely to be the case for contributors to symbolic interest groups. As will be discussed in more detail, public interest group leaders consciously keep the cost of membership down relative to the target membership's ability to pay to overcome the severe collective action problems they face. Given the relative costs of overcoming informational shortfalls from outside as compared to inside an organization, contributors are likely to join a symbolic association to learn about it.

The existence of experiential search has been demonstrated previously (Rothenberg, 1987a). It has been shown, for example, that most members of Common Cause claim they joined the association for very broad reasons but much more specific concerns shape their decision whether or not to stay in the group. It has also been demonstrated that newcomers to the group differ from veteran members in a number of ways: They know less about the organization—how it operates and what stances it adopts; they are more likely to find that the association is not a good match for them and leave; and they are more likely to rely upon updated information in making a decision whether or not to remain in the organization. Finally, it has been found that most individuals join the organization as rank-and-file members, learn about it, and then decide whether or not to become activists (Rothenberg 1987b).

What this all implies for the initial membership choice is that broad policy preferences and an ability to pay should be particularly important. First-time contributors are only likely to have very rough evaluations about how much they value the group's magazine or the political information furnished to members, the types of interactions offered, the association's specific positions on a variety of issues, or the additional monetary and nonpecuniary costs of membership besides annual dues.

Benefits and Costs of Common Cause Membership: Citizen and Organizational Influences

The standard means of estimating a cost-benefit participation calculus at one point in time is to identify what participant characteristics make a difference at the aggregate equilibrium observed. Understanding why some imperfectly informed citizens sign up and others do not, given the tremendous problems of collective action, is more complicated: Organizational behavior selectively

influences the cost and benefit estimates made by potential contributors.

Theoretically, it is possible that contacted citizens join randomly and all that matters is whom the organization chooses to solicit. Alternatively, it is conceivable that associational advertising has no pattern and that the joining process is completely driven by potential members' preferences. It is almost certain that both citizen and leadership decision-making matter.

This dual process can be illustrated by distinguishing between *organizational* and *citizen* attributes. Two organizational attributes are potentially germane for an association such as Common Cause: the level at which annual dues are set and decisions about which citizens to contact about joining. As the organization exercises no price discrimination, dues levels are relevant for predicting supply only temporally, not cross-sectionally.

Contact is likely to be an important determinant of membership because it essentially lowers the price of being in the organization for poorly informed potential consumers. In principle, actual data on whom Common Cause contacted before they decided whether or not to contribute could be used to specify a two-stage recursive process that examines first whom is contacted and then who joins. However, this information is unavailable; a second-best alternative that is adopted in this analysis is to employ data that are linked to the probability of being contacted to estimate a reduced-form equation.

For Common Cause, the likelihood of being asked to join is virtually tantamount to whether one receives a mail solicitation:[8]

> While television and other methods of new membership recruitment are being explored, direct mail to date remains the only means of recruiting members in sufficiently large numbers to maintain and expand our membership levels. Direct mail is initially expensive. In all but one year of Common Cause's history it has cost more to recruit new members than we have received from those new members in first year dues and contributions. (Common Cause 1983, p. B5)

Given the expense of advertising through the mail, it is imperative that the organization recruit members in a cost-effective manner. Common Cause will consequently contact only those citizens whom they believe are most likely to join, to stay, and to contribute more than the minimum dues. The probability of being solicited is consequently a function of an estimated earnings stream.

What citizen attributes, then, structure the probability of joining and contributing, and presumably the likelihood of being contacted, for symbolic groups such as Common Cause? The two characteristics that stand out are the ability to purchase membership and having the taste for it.

A maintained hypothesis is that belonging to Common Cause is a normal good. The ability to purchase membership should reduce the relative costs of being a Common Cause contributor. However, a caveat should be added: Given the problems of collective action that organizational leaders of symbolic groups face, they are likely to try to keep the costs of joining low. If members are either willing to pay more initially to join or subsequently discover that they are so satisfied with their purchase that they are willing to contribute more, they will undoubtedly be asked for additional contributions. Indeed, 62.6 percent of respondents in the CC survey reported contributing more than their dues at some point.[9]

Demand should also differ across types of individuals because of variations in tastes. These, in turn, should be a function of two factors: policy preferences and political interest.

Common Cause will be more attractive to those individuals with a positive view of what the organization represents. As a nonpartisan, liberal group, it should be more alluring to independents and Democrats than to Republicans. Independents should find the organization desirable because it has frequently campaigned against political parties. Democrats should view it favorably because its political activities have led to the forging of alliances with Democrats far more frequently than with Republicans and have been far more in tune with Democratic policy positions.

Those who are politically interested will be more likely to receive benefits from contributing, *ceteris paribus*. It is not only whether an organization's position corresponds to a citizen's personal preferences that is important, but also how much weight the individual places on political issues.

Thus, high levels of political interest and policy preferences that are roughly consistent with what Common Cause stands for will drive up the probability of agreeing to be an association member. The expected benefits of joining are based not only on very rough estimates about the returns from the collective goods the organization allegedly furnishes but also about the interactions and the selective benefits—notably a magazine but also political information and potential contacts for self-promotion—-that the group might provide. The organization will seek out individudals with a high probability of joining, which will in turn lower their costs and make them more aware of the benefits of giving.[10]

To summarize: Organizational recruitment is a two-stage process (Figure 1). This system can be expressed as follows:

$$p_c = f(\text{INT}, \text{PREF}, \text{PAY}, u^1) \tag{1}$$

$$p_j = g(\text{CON}, \text{INT}, \text{PREF}, \text{PAY}, u^2) \tag{2}$$

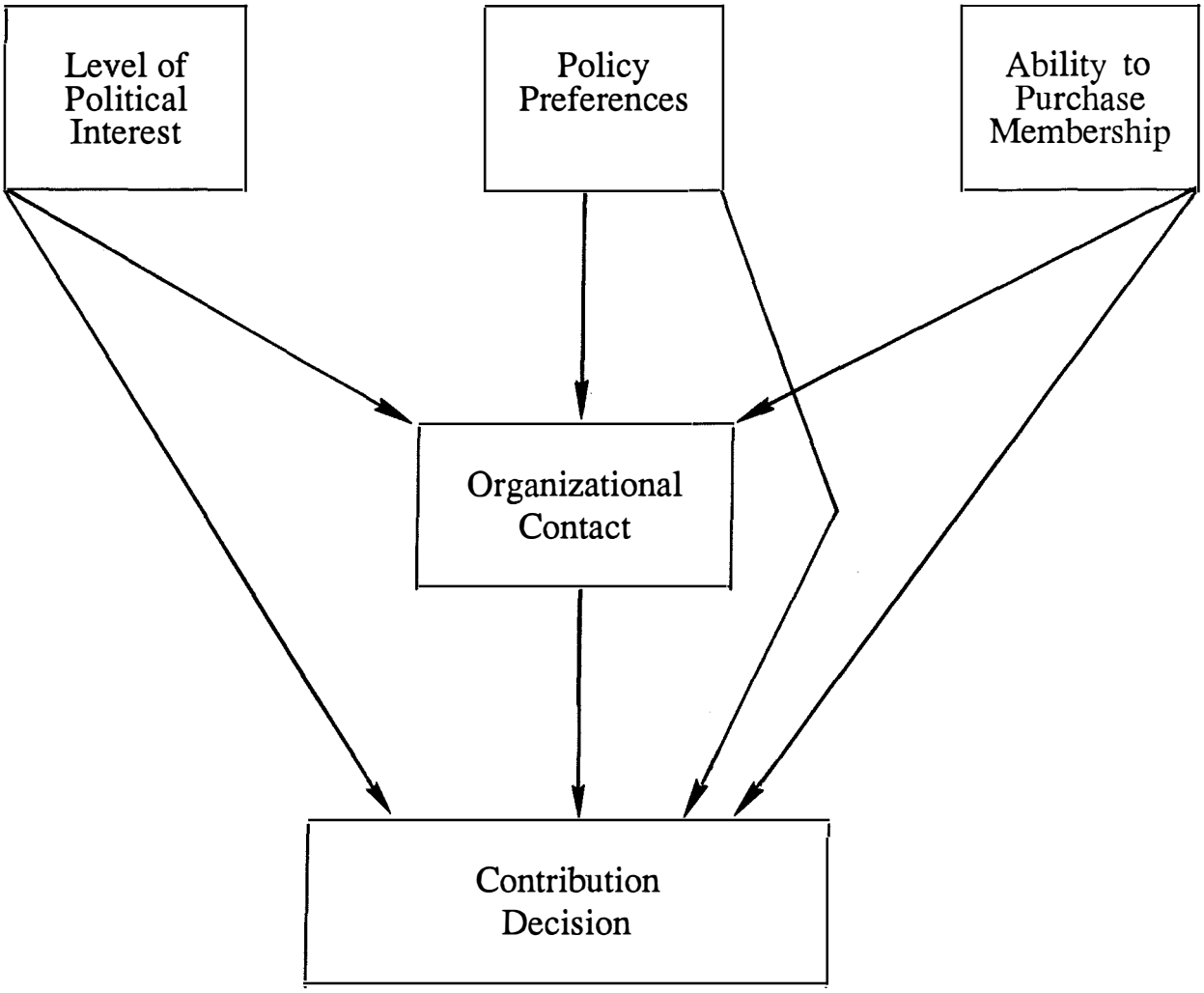
where p_c represents the probability of being contacted; p_j, the probability of joining; INT, the level of political interest; PREF, the relevant political preferences; PAY, the ability to purchase membership; CON, whether the citizen has been contacted; and u^1 and u^2 are the corresponding error terms. In reduced form, this translates into estimating

$$p_j = h(\text{INT}, \text{PREF}, \text{PAY}, u^3) \tag{3}$$

where u^3 represents the error term for forces outside the model. The estimated coefficients from equation (3) will be linear combinations of (1) and (2); however, the available data make it impossible to determine the relative contributions of the two sets of coefficients.[11]

(Figure 1 about here)

FIGURE 1: A MODEL OF CONTRIBUTION BEHAVIOR



Why Do People Join Common Cause?

Having laid out the informational assumptions, the benefits and costs of joining Common Cause, and the model to be estimated, it is now possible to turn to the heart of this analysis. Why do people join Common Cause?

Measurement

The previous discussion makes it clear that it is necessary to measure four underlying concepts: membership, the ability to purchase it, political interest, and policy preferences. Membership, the dependent variable, can be measured without difficulty. The 57 percent of respondents who were interviewed as part of the NES sample are scored a zero, and the remaining 43 percent who were part of the CC sample are scored a one.

The three factors specified to predict membership are measured as follows:

(1) The ability to pay for membership is measured using 1980 family income.[12]

(2) Political interest cannot be directly measured in the CC/NES sample, but its sociodemographic determinants (Bennett 1986) can be employed as surrogates. By far the most important of these components is education; age and gender, however, both matter as well. Interest is therefore tapped by a series of dummy variables: one measuring educational achievement, in which those who have not been to college are scored as a zero;[13] a group that categorizes respondents according to their age, in which those who are less than 25 years old are not included; and another in which those who are male are scored one.

(3) Policy preferences are gauged with a series of dummy variables measuring party identification, where strong Republicans are the group omitted. Additionally, a dummy variable in which whites are scored one is incorporated based on the assumption that Common Cause has been active on procedural issues and not on the economic and social issues that should especially concern nonwhites.[14]

Expectations for the impact of each influence are straightforward. A greater ability to pay will encourage membership, i.e., wealthier individuals should be more willing to purchase membership. A higher level of political interest will also be a positive determinant of contributory behavior. Specifically, male, educated, and older respondents will all be more prone to join: It is possible, however, that extremely aged respondents may be somewhat less likely to sign up than those slightly younger, although the effect of age relative to the very young should still be positive. It is also posited that Democrats and independents will be more likely to join than strong Republicans, although the effect of party identification may not increase monotonically.[15]

Estimation: Dealing with Endogenous Sampling Designs

This model cannot be estimated with standard probit or logit techniques because of the problem of sampling endogeneity. As mentioned, the NES sample would contain, on average, two Common Cause members; the magnitude in the combined data set exceeds 40 percent, i.e., this is a sample that is stratified on the choice that is trying to be explained. Any model that is estimated

without adjusting for this fact will produce inconsistent estimates.

The solution to this problem lies in the use of choice-based probability models (for surveys, see Maddala 1983, Amemiya 1985, Ben-Akiva & Lerman 1985). The weighted exogenous sample maximum likelihood function (WESML) proposed by Manski and Lerman (1977) in particular is appropriate because the actual probability that an individual belongs to Common Cause is known.[16]

The intuition behind the Manski/Lerman solution is straightforward. If both the real world proportions of the groups in the sample (Q*i*)—about 1 out of every 800 individuals in the voting-age population belong to Common Cause—and the sample proportions (H*i*) are known, the sample can be treated as if it were exogenously selected, except that each observation is weighted by Q*i*/H*i*. Except for this weighting, the maximization of the WESML function is identical to that of an exogenously chosen sample. In a random sample Q*i*/H*i* is one; in others, underrepresented choices are more heavily weighted. Derived coefficients are not generally asymptotically efficient, but they are consistent; this makes WESML a quite satisfactory solution in reasonably large samples.

More formally, for each $i \in C$, where C is the choice set, it is possible to define the function $w(i)$ by $w(i) = \mathrm{Q}(i) / \mathrm{H}(i)$. Assuming Q($i$) is known and H($i$) can be calculated directly from the data, $w(i)$ is known. Consider then the weighted exogenous sampling likelihood function

$$W_N(y, \theta) = \sum_{n=1}^{N} w(i_n) \log P(i_n, z_n, \theta) + \sum_{n=1}^{N} w(i_n) \log g(z_n). \tag{4}$$

where z_n is a vector of attributes, θ is a parameter vector, and $y = (i_n, z_n)$. It is possible (although complicated) to show that (4) yields coefficients that are strongly consistent and asymptotically normal. The resulting covariance matrix is

$$V = \Omega^{-1} \Delta \Omega^{-1} \quad \text{where} \tag{5}$$

$$\Omega = \left[-E\left(\frac{\partial^2 w(i) \log P(i, z, \theta)}{\partial \theta \, \partial \theta'} \right)_{\theta^*} \right],$$

$$\Delta = \left[E\left(\frac{\partial w(i) \log P(i, z, \theta)}{\partial \theta} \right)_{\theta^*} \left(\frac{\partial w(i) \log P(i, z, \theta)}{\partial \theta'} \right)_{\theta^*} \right],$$

and the expectations E operate over i and z with respect to the distribution given by $\lambda_c(z/i)\mathrm{H}(i)$, where $\lambda_c(z/i)$ is the likelihood of drawing z conditioned on drawing a decision maker who has selected i.

Results

The WESML estimates for the total sample demonstrate that contributory behavior is explicable through the application of choice-based techniques (Table 2). Given the overwhelming probability that a citizen in the voting age population will not join Common Cause, any properly

estimated model will still predict that everyone will be nonmembers; nevertheless, the structural model specified in this analysis permits the categorization of respondents by their likelihood of joining.[17]

This can be illustrated by examining two extreme cases. The results show that the probability that a black woman under 25 years of age, without any college education, who earns less than $10,000 per year, and is a strong Republican will join as an astronomical 1 in 20,000,000. Contrast this with the one in nine likelihood—90 times greater than for the average citizen—that a white male who has been to college, earns over $50,000 yearly, is over 70, and is an independent Democrat will sign up for Common Cause.

(Table 2 about here)

Both political interest and policy preferences influence the contribution decision in a highly predictable manner. However, the ability to purchase membership is apparently irrelevant. Clearly, drawing inferences only from the descriptive data is a dangerous exercise.

High levels of political interest precipitate contributory behavior. Although females are as prone to sign up as males, older citizens are more likely to join than their younger counterparts. Nor is there an obvious diminution of participation even among the oldest group—perhaps reflecting the fact that it requires little effort to write a check once a year to maintain membership status.

Similar to studies of voting participation (Wolfinger & Rosenstone 1980), education has an extremely strong impact on decision-making. More educated citizens have a greater interest in politics; this increases considerably their propensity to sign up for a symbolic organization.

Having the "correct" policy preferences also raises the probability of being a member. Democrats and independents are both more likely to join Common Cause: Those identifying with the Republican party are indistinguishable whether they claim that they are weak or strong partisans. The effect of party identification is not monotonic: The quintessential associational contributor is a Democratically leaning independent.

Whites also find Common Cause more attractive than nonwhites. The allure of structure and process issues is apparently less for nonwhites who have other social and economic concerns that are important to them.

Ability to pay, however, is irrelevant for joining. Assuming that family income accurately measures the relative membership costs—and despite dramatic differences in the income levels of members and nonmembers—this result implies that the price of belonging is unimportant for symbolic group membership. There is no support for the hypothesis that membership is a normal good. What explains this intuitively curious finding?

The answer has already been foreshadowed: Organizational leaders recognize the problems of collective action and keep the monetary cost of membership so low that the ability to pay is irrelevant. If contributors are willing to spend more on membership, they can be assured that they will get requests for additional contributions. Organizational leaders at Common Cause seemed to have learned over the years that it pays to keep dues low: They have consciously allowed the real cost of joining the association to decline by more than two-thirds (the original $15 membership rate was increased to $20 in 1980 and has remained stable ever since). They have simultaneously tried to

TABLE 2. DETERMINANTS OF GROUP MEMBERSHIP (WESML ESTIMATES)

Variable	WESML Coefficient[a] (Standard Error)
Constant	-15.919*
	(2.420)
Ability to Purchase Membership	
Family Income	0.221
	(0.324)
Political Interest	
Gender	0.226
	(0.944)
Age	
28 – 30	0.573***
	(0.435)
31 – 40	1.485*
	(0.480)
41 – 50	2.160*
	(0.834)
51 – 60	2.624*
	(0.829)
61 – 65	3.384**
	(1.657)
66 – 70	3.059*
	(1.095)
70 +	3.914**
	(1.814)
Education	3.273*
	(0.635)
Policy Preferences	
Party Identification[b]	
Strong Democrat	2.337*
	(1.005)
Weak Democrat	1.516**
	(0.686)
Leaning Democrat	3.268**
	(1.716)
Pure Independent	2.455*
	(0.858)
Leaning Republican	1.724***
	(1.089)
Weak Republican	0.475
	(0.654)
Race	1.786*
	(0.750)
Number of Cases	2545
$-2x$ log likelihood function	39

$^{***}p \leq .10$ $^{**}p \leq .05$ $^{*}p \leq .01$

[a] Weights for the WESML estimator are $\left(\frac{.9987}{.5462}\right)$ and $\left(\frac{.0013}{.4538}\right)$ for nonmembers and members, respectively.

[b] Independents are divided into Leaning Democrat, Pure Independent, and Leaning Republican.

make up for this revenue erosion by "a steady intensification of fund raising to supplement dues" (Common Cause 1984, p. 7) and by improvements in production processes to lower Common Cause's costs.[18] Put another way, by keeping member costs low, leaders can winnow down their original undifferentiated mailing list to include only those with a fairly high probability of contributing additional sums and remaining in the association for a long time.

Conclusions

To the extent that scholars have empirically studied the joining decision, they have tended to employ descriptive data about associational contributors and draw implicit or explicit inferences. This is an unwarranted and misleading means of conducting research. When the membership choice is systematically examined, it becomes clear that there is no theoretical reason why a plethora of factors that distinguish members from citizens should be relevant for the joining decision; and the empirical evidence disconfirms the hypothesis that certain of these characteristics are germane.

Political interest and a similar general policy orientation are both important elements of the contribution choice. Better educated and older citizens are far more interested in politics and willing to take a chance on an organization like Common Cause. So are Democrats, independents, and whites.

In all likelihood, the factors precipitating membership funnel into the participation calculus in a number of ways that cannot be disentangled with a reduced-form estimation. Probably two underlying processes are key: (1) high levels of interest and policy preferences that match an organization's reputation raise the probability of being contacted and consequently reduce the cost of membership; and (2) interest and policy orientations increase the value of the benefits the organization offers. To reiterate, these benefits may derive not only from the association's stated goals but may also emanate from rough estimates concerning the value of whatever private inducements or opportunities for interaction are furnished. It is also possible that interested citizens are more likely to know others in the association and that they are more prone to be among the few who seek out membership opportunities.

By contrast, the monetary cost of joining is not germane. Common Cause membership is a very unusual type of good. Organizational leaders keep the price so low that income does not represent a barrier to joining. This allows imperfectly informed citizes to join and sample the organization and learn whether what it offers is consistent with their preferences and worth continued contributions.

To summarize: Politically interested individuals whose broad policy preferences are most likely to be a good match for Common Cause will join in greater proportion because their estimated costs are lower and their expected benefits are higher. This attraction can reflect not only their own behavior but the actions of organizational leaders. Over time, those who join will become more knowledgeable about the real costs and benefits of membership and make better informed decisions about whether to stay in the group and what level of monetary and nonmonetary contributions is appropriate for them.

Finally, this analysis demonstrates the broader utility of choice-based models to answer questions that have been beyond the realm of more conventional research designs.[19] Although the

model specified in the present analysis is admittedly a bit crude, the results have shed light on a important problem that researchers have been unable to examine in depth on the individual level. There are undoubtedly other research questions for which choice-based techniques can be profitably applied.

Notes

* I would like to thank Jeffrey Dubin for going beyond the realm of collegial obligation in providing programming and econometric assistance; Jeffrey Flint, for research assistance; and Bruce Cain and Kevin Grier, for wise advice. It should be emphasized, however, that all errors are exclusively the author's responsibility.

1. Hansen (1985) has also used aggregate-level data to estimate a context-dependent model based on prospect theory. Incorporating his insights on the individual level would require panel data.
2. The Common Cause survey was conducted in the fall of 1981 by the political science department of Stanford University. It was funded by grant SES-8105708 from the National Science Foundation to Professor Heinz Eulau in support of research by Jonathan Siegel. Many thanks to Mr. Siegel for generously furnishing these data to the author.

   The National Election Study data were made available by the Inter-University Consortium for Political and Social Research. The 1980 NES data were originally collected by the Center for Political Studies of the Institute for Social Research, University of Michigan. Neither the original collectors of the data nor the consortium bears any responsibility for the analyses or interpretations presented here.

   Four potential complications in combining the NES and the CC data deserve mention: (1) the possibility that the NES respondents are members of Common Cause; (2) the roughly 12-month time difference between the NES and CC surveys; and (3) the differences in question wording (the CC survey, being a mail questionnaire, tended to have more tersely worded questions than the verbally administered NES instrument); and (4) the possibility of econometric complications because the CC survey oversampled organization-designated activists. However, on average only two NES respondents should be Common Cause members—since the association had roughly 200,000 members and the American electorate had a voting age population of roughly 165,000,000 circa 1980—so it can be assumed with impunity that no NES respondents are group members. The effects of the temporal gap between surveys should be minimal for almost all of the information employed in this research because these factors should change only slowly over time. Additionally, only those questions with identical or nearly identical wording were employed (see Appendix 1); the resulting data should be reasonably immune to these slight variations. Finally, the fact that activists were oversampled so that they made up 23 percent of the sample is unimportant: As long as the sample is stratified on exogenous characteristics, it has no impact on the quality of the statistical analysis.
3. In the years after the data utilized in this analysis were collected, Common Cause increasingly incorporated other nonprocedural issues as part of its agenda, notably nuclear defense issues such as the MX missile.
4. The NES measured education in years; these data were put into the categories employed in the CC study. The NES also offered a far more varied list for respondents whose family income was less than $50,000. CC members chose among the categories found in Table 1, except that more information was gathered on those earning in excess of $50,000. Since the NES and CC collected data on family income in 1979 and 1980, respectively, at a time of high inflation, the

NES respondents claiming they earned from $9,000-$9,999, $17,000-$19,999, $23,000-$24,999, and $30,000-34,999 were categorized in the $10,000-$20,000, $20,000-$25,000, $25,000-$35,000, and $35,000-$50,000 ranges, respectively. Of those who are nonwhites, 274 are blacks and another 28 belong to other groups. Age was measured continuously in the NES study and collapsed into the categories incorporated in the CC instrument. The measure used for urbanism is the percentage urban in the congressional district as reported in the *Congressional District Data Book*; the occupations variable was derived by placing CC respondents into the categories used in the NES study.

5. These performance evaluations may be endogenous to membership itself. Additionally, members were asked to evaluate the presidency; Common Cause members were far more negative. However, not only is it likely that these comments reflect an evaluation of an incumbent rather than an institution, but the time gap between the two surveys spanned the Carter to Reagan transition. The resulting data are completely unreliable.
6. Even more than performance evaluations, these behaviors must be seen as endogenous to group membership since the great majority of contributors surveyed had joined before the 1980 election. Only to the extent that these electoral behaviors reflect a general predisposition to participate can these measures be viewed as both relevant for the group membership decision and exogenous to it.

   NES respondents were also asked whether they had checked off donations on their income tax in those states where it was applicable. If those answering affirmatively are included, then 11.9 percent of the national electorate contributed money in 1980.
7. In short, the issue of whether the "p" term is relevant (Mueller 1979) will not be considered in this analysis; however, it is assumed that members of public interest groups are principally concerned with benefits in terms of consumption. It is hard to believe that symbolic group members really believe that they have an impact—especially since better educated individuals are much more prone to join.

   Both the CC and NES studies did include a question on political efficacy and attitudes toward political parties. However, not only are the responses likely to be endogenous to membership, but this question would provide an inaccurate measure of personal efficacy given Common Cause's hostility toward political parties.
8. This is reflected in the fact that an analysis of four recent weeks worth of membership data reveals that 95 percent of the organizations' new members came from direct mail solicitation. The author would like to thank Mr. Jay Hedlund and Mr. Fred Wertheimer for supplying these data.
9. This figure is somewhat exaggerated since, as mentioned, the CC sample overrepresents association designated activists. The percentage contributing additional money is 55.7 percent and 77.0 percent for rank-and-file members and activists, respectively.
10. Common Cause uses its own set of surrogate measures in deciding whom to contact. It principally sends solicitations to people on lists obtained from other organizations, direct-mail specialists, or upscale magazines (McFarland 1984).

11. The absence of excluded exogenous variables makes the joining equation unidentifiable (for a discussion of identification, see Maddala 1977). It is impossible to employ instrumental variables and recovering structural parameters from the reduced from is precluded.
12. Family income is a six-fold measure using the categories found in Table 1.
13. The dichotomous measure of education results in a better fitting model than employing a series of dummy variables and also avoids problems of multicollinearity.
14. Due to problems of multicollinearity and a severe loss of cases, liberalism-conservatism is not incorporated into the analysis.
15. Given these strong expectations, one-tailed significance tests are employed.
16. If the real world probabilities are unknown, then—theoretically at least—there is a solution developed by Manski and McFadden (1981).
17. Consequently, the percentage correctly predicted is a meaningless statistic for goodness of fit.
18. There is little evidence generally that income has a positive impact on Common Cause contributions. Previous analyses of the decision to stay in the group (Rothenberg 1987a) and to be an activist (Rothenberg 1987b) show that income is unimportant in the first instance and a *deterrent* in the second; when the retention model is rerun with a dichotomous dependent variable scored zero for those who did not report having at some time given extra money and a one for those who did, income is again discovered to be unimportant. This latter finding should be tempered by the acknowledgment that the amount of money individuals donate would ideally be the dependent variable: Income may determine whether members give $10 or $1,000.
19. For example, Barke and Riker (1982) profitably use choice-based methods to explain ICC railroad abandonments. However, this is the only application of these techniques by political scientists that is known to this author.

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Appendix 1: Question Wording of Common Cause and National Election Study Questions

For many of the sociodemographic questions—on age, sex, income, race, etc.—question wording is not problematic. The possibility that wording nuances will make a difference is more germane for behavioral and especially attitudinal questions; only measures with extremely similar wording were employed. As mentioned, the questions in the NES instrument were somewhat longer, reflecting the fact that it was used in a face-to-face interview rather than as a mail questionnaire.

Party Identification

(CC) "We hear a lot of talk about liberals and conservatives. Below is a scale on which the political views that people might hold are arranged from extremely liberal to extremely conservative. Where would you place yourself on this scale?"

(NES) "Generally speaking, do you usually think of yourself as a Republican, a Democrat, an Independent, or what?"

[Those identifying a partisan preference] "Would you call yourself a strong Republican (Democrat) or a not very strong Republican (Democrat)?"

[Those calling themselves Independents] "Do you think of yourself as closer to the Republican or to the Democratic party?"

Liberalism-Conservatism

(CC) "We hear a lot of talk these days about liberals and conservatives. Here is a seven-point scale on which the political views that people might hold are arranged from extremely liberal to extremely conservative. Where would you place yourself on this scale?"

(NES) Same wording, except the phrase "or haven't you thought much about this" is appended to the question.

Performance Rating Questions

In both surveys, performance ratings were requested for the federal government in Washington, the presidency, Congress—specifically defined as the U.S. Senate and the House of Representatives—the Supreme Court, and the political parties. For the NES, respondents are coded on a nine-point scale with points labeled very poor job (0), poor job (2), fair job (4), good job (6), and very good job (8); the Common Cause respondents had these five options without intermediate options. The introductory statements were slightly different:

(CC) "Now we'd like to know how good a job you feel some of the parts of our government are doing for the country as a whole. Do you feel that each of the following of government is doing a very poor job, a poor job, a fair job, a good job, or a very good job?"

(NES) "Now we'd like to ask you how good a job you feel some of the parts of our government are doing. As I read, please give me the number that describes how good a job you feel that part of government is doing for the country as a whole."

Political Efficacy and Attitudes toward Parties

The NES and CC studies ask one nearly identical question designed to tap political efficacy and attitudes toward parties: The NES version states that "Parties are only interested in people's votes but not in their opinions." The CC question drops the term only. In the NES, respondents are asked whether they agree or disagree; in the CC study, respondents may check strongly agree, agree somewhat, not sure, disagree somewhat, or strongly disagree.

Participation Activity

Two questions tapped the same political activities in the 1980 election.

(CC) "Did you do *any* of these activities on behalf of a candidate in the 1980 election?"

"Contributed money to a political campaign?"

"Did political work in a campaign organization?"

(NES) "What about other contributions? Did you give any money this year to a candidate running for public office?"

"Did you do any work for one of the parties of candidates (during the campaign)?"